

3.0 AFFECTED ENVIRONMENT

3.1 Land Use

This chapter presents existing conditions in the project area. Where appropriate, impacts are addressed in Chapter 4.

3.1.1 Existing Land Use

As described in Chapter 2, land use from East Center Street in downtown Kingsport to SR 93 (John B. Dennis Highway) is primarily commercial with some residential land use. Commercial uses are a mix of services, including exercise facilities, a dry cleaning business, an auto repair business, a music store, and several convenience stores. The residential land use is mainly single-family residential (40 years of age or older). The land use transitions to mainly residential with very few commercial enterprises as SR 126 crosses underneath SR 93. Between SR 93 and Old Stage Road, the land use is an urban residential composition that includes a mixture of older single-family residences and multi-family buildings, with some businesses along the corridor. The location of homes in this area is either in a valley (lower level than the roadway), or above the roadway on a ridge due to the road's proximity to hills and the degree of hill slopes.

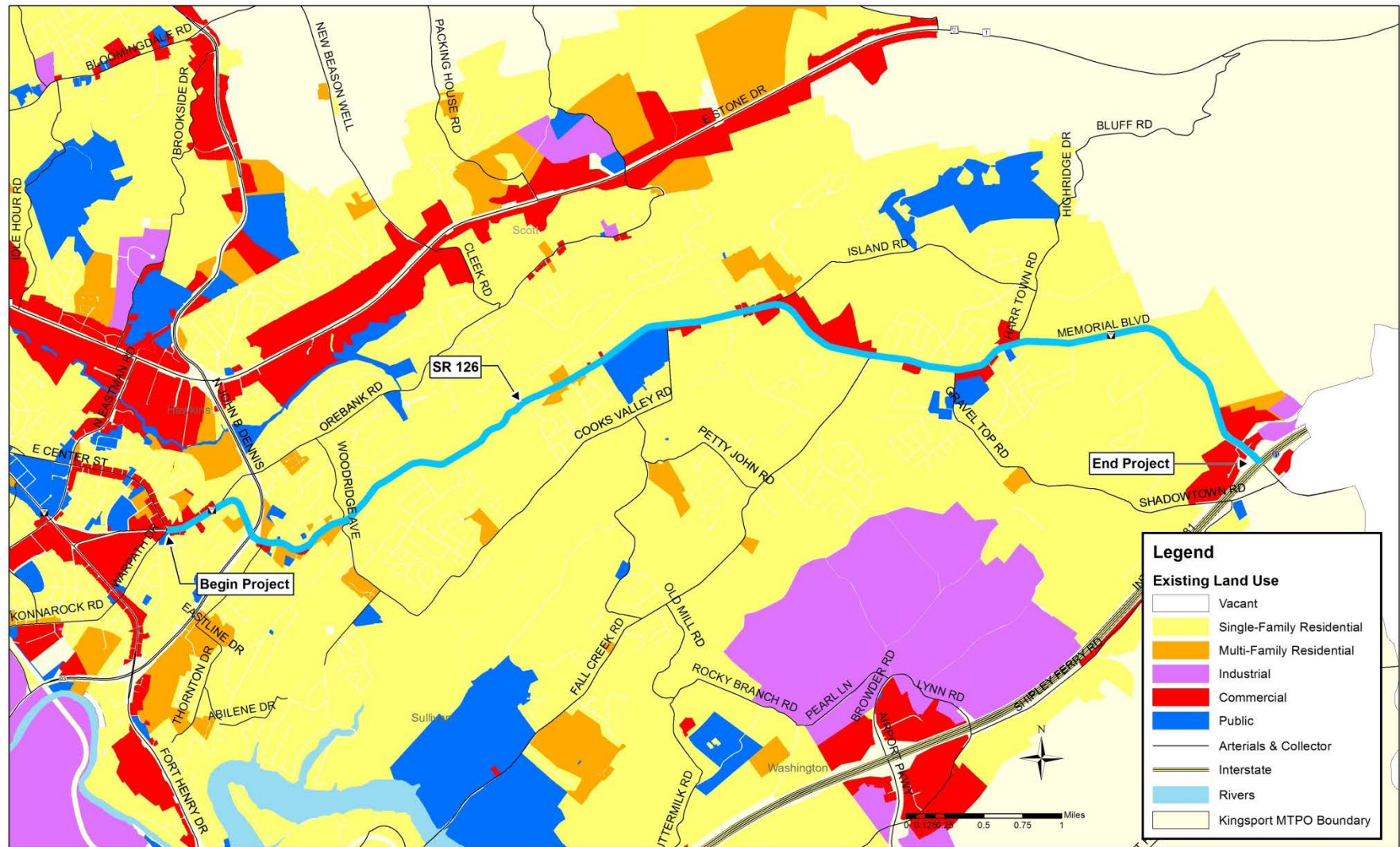
East of Old Stage Road, SR 126 crests Chestnut Ridge and begins to flatten. The areas to the north and south of SR 126 become less severe in their slopes. In this area, the land use remains residential although agricultural land use becomes more evident. The area between Old Stage Road and Cooks Valley Road also includes the East Lawn Memorial Gardens Cemetery with numerous gravesites adjacent to the existing roadway and Yancey's Tavern, a property listed on the NRHP. The property is currently used as a community meeting and events venue.

From the cemetery to Samlola Road, the land use on either side of SR 126 is a blend of residential and agricultural, with some commercial land use scattered lightly through the area. Within this segment, residences are more densely populated around Fall Creek Road, Lonesome Pine Road, Cochise Trail, and Chippewa Lane. Residential development is planned and ongoing adjacent to Island Road. The areas of commercial land use are concentrated around neighborhoods. The Indian Hills area features a shopping center with a national chain discount store. In addition, a veterinary clinic and several small businesses exist in this area, which includes the junction of SR 126 and Island Road.

From Samlola Road to Overhill Drive, the area is less developed. Some homes exist, but farmland is more prevalent. The Overhill Drive area, Shadowtown Road, and Carolina Pottery Drive are all located in the vicinity around the SR 126 interchange with I-81, the eastern terminus of the project. This area is primarily highway commercial with some residential land use.

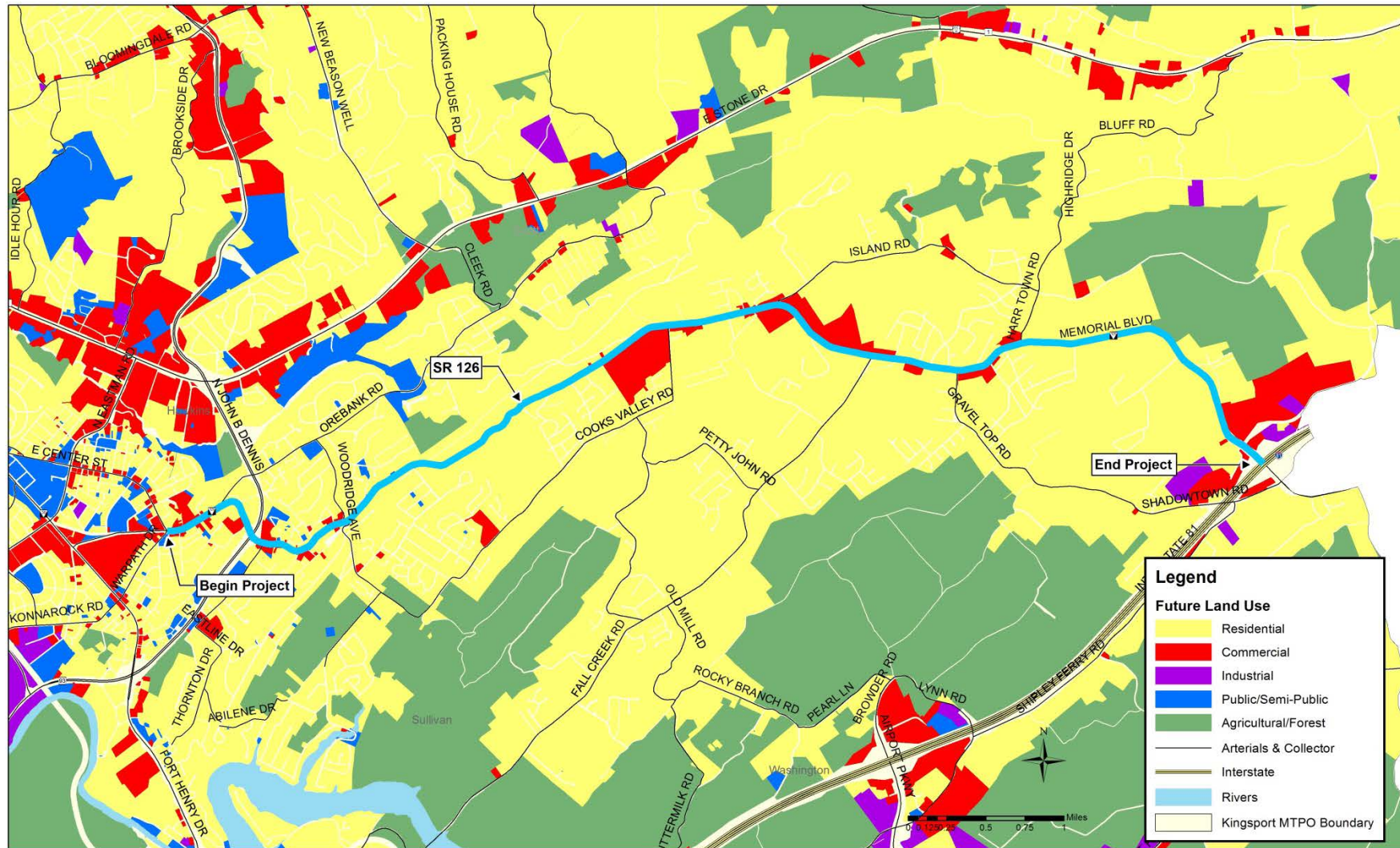
3.1.2 Land Use Plans and Regulatory Controls

Kingsport's city limits include the western terminus of the study corridor at East Center Street and extend eastward to approximately the western terminus of Old Stage Road. The area from Old Stage Road eastward to the I-81 interchange is outside the Kingsport city limits. Kingsport's city limits also include the area around I-81 as a linear corridor. The interchange of SR 126 and I-81 is included in this linear corridor and is within the city limits. According to the KMTPO 2035 LRTP, existing land uses along the project corridor are residential and agricultural/forest. See Figure 3-1 for the existing land use in the project area. Commercial land uses are also present with the larger concentrations of commercial uses located at each terminus.

FIGURE 3-1: EXISTING LAND USE IN THE PROJECT AREA

Source: Kingsport Metropolitan Transportation Planning Organization's (KMTPO) 2035 Long Range Transportation Plan.

FIGURE 3-2: FUTURE LAND USE IN THE PROJECT AREA



Source: Kingsport Metropolitan Transportation Planning Organization's (KMTPO) 2035 Long Range Transportation Plan.

The LRTP future land use map indicates land uses are expected to generally remain the same. See Figure 3-2 for the future land use in the project area. The existing land use map indicates some commercial areas will be larger in the future.

Reviews of the project area and zoning maps for Kingsport (July 2013) and Sullivan County (April 2012) indicate the zoning along the project corridor is primarily residential. See Figure 3-3 and Figure 3-4. The predominant residential zoning is single-family with some multi-family (duplexes and apartments). Commercial zoning is predominantly at the western and eastern termini, with some smaller scattered areas along the corridor.

The *Sullivan County Regional Plan: A Guide for Future Land Use and Transportation Development, Planning Period 2006 – 2026* (Sullivan County, 2008) notes that, like many counties in northeast Tennessee, the pattern of land use or development in Sullivan County has been significantly affected by natural factors, including extreme slopes and soil suitability. Slopes in Sullivan County, and within the SR 126 Study Corridor, range from below five percent to nearly 50 percent. In areas with a slope greater than 20 percent, limitations to development are severe. Based on soils analysis, there is very little of Sullivan County that is considered suitable for urban development utilizing subsurface sewage disposal systems (septic tanks). Areas not serviced by sewer lines have limited high density development potential. The area along SR 126 Corridor, from Harr Town Road to I-81, is not serviced by sewer lines.

3.2 Community Services

3.2.1 Schools

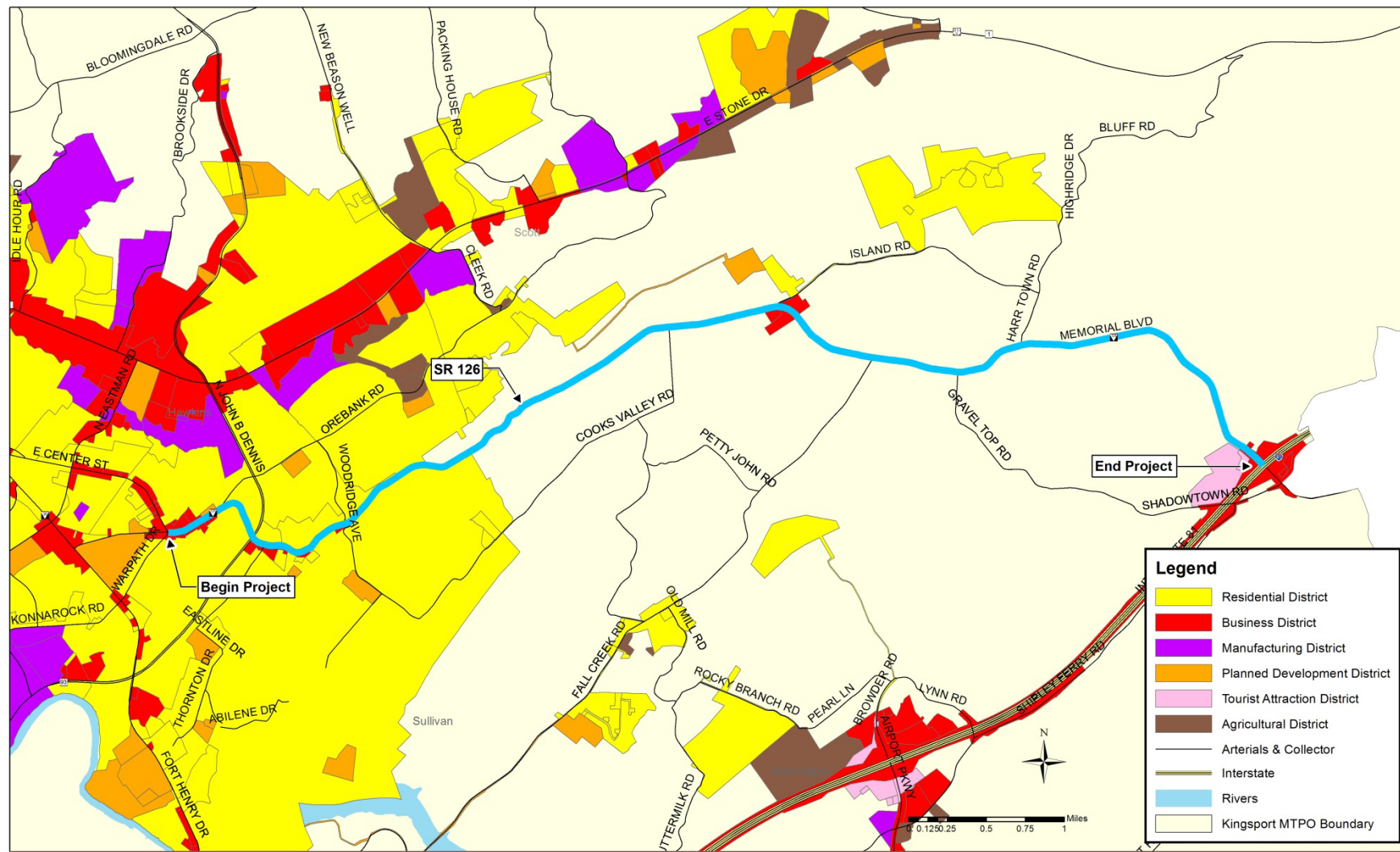
The Sullivan County Department of Education serves over 10,000 students. In total, there are four high schools, six middle schools, and 10 elementary schools. The nearest school to the project corridor is Indian Springs Elementary School, located approximately 300 yards south of SR 126. Central High School is located just outside the eastern terminus of the study corridor and is east of I-81. There are four other schools that have bus service within the project area: Blountville Elementary, Blountville Middle, Holston Elementary, and Holston Middle.

3.2.2 Fire, Medical Emergency, and Police Protection

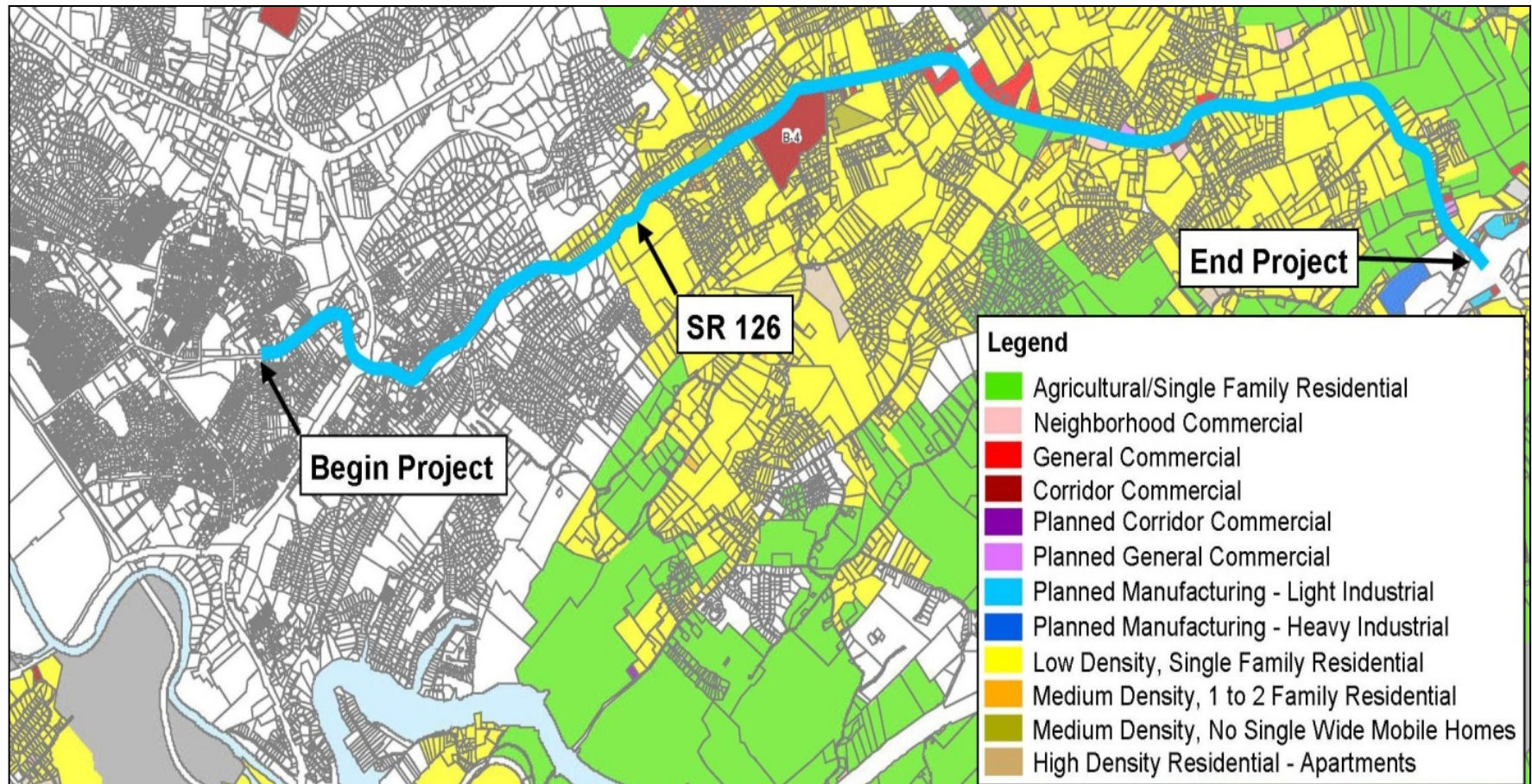
The proposed project area includes one volunteer fire station, Kingsport Fire Department Station #4, which is located near the western terminus of the study area near Heather Lane. No other emergency service facilities are located within the project impact area.

3.2.3 Hospitals

Sullivan County has several hospitals, and three are located in Kingsport. These hospitals are HealthSouth Rehabilitation Hospital of Kingsport (113 Cassel Drive), Indian Path Medical Center (2000 Brookside Drive), and Holston Valley Medical Center (130 West Ravine Road). None are located within close proximity to the project corridor.

FIGURE 3-3: KINGSFORT ZONING IN THE PROJECT AREA

Source: Kingsport Zoning Map (July 2013).

FIGURE 3-4: SULLIVAN COUNTY ZONING IN THE PROJECT AREA

Source: Sullivan County Zoning Map (April 2012).

3.2.4 Utilities

The Preferred Alternative (Alternative B Modified) will replace portions of the existing roadway. Utilities are provided by the City of Kingsport (sewer and water) and Appalachian Power (electric). As a result of the proposed project, sewer lines and water lines within sections of the project area will have to be moved, replaced, and, or repaired.

3.2.5 Multi-modal Transportation

Airports

The area is served by the Tri-Cities Regional Airport. This facility is owned by Johnson City, Kingsport, and Bristol in Tennessee as well as Bristol in Virginia. It is centrally located to serve these communities and is not located near the project area.

Rail

According to the KMTPO's 2035 LRTP and the *Sullivan County Regional Plan 2006-2026*, future plans do not include increased usage of this form of transportation.

Two Class I railroads operate in the Kingsport area: Norfolk Southern Railroad and CSX. No existing railways and no proposed railways are identified within the project corridor.

Pedestrian and Bicycle Facilities

SR 126 is not listed as a state-designated bicycle route. However, it is TDOT's policy (*Bicycle and Pedestrian Policy #530-01*) that provisions for bicycles and pedestrians be integrated into new construction and reconstruction of roadways through design features appropriate for the context and function of the transportation facility.

After the DEIS was approved, the KMTPO developed the *2012 Kingsport Regional Bicycle and Pedestrian Plan* to establish a comprehensive bikeway and pedestrian network within its jurisdiction. The Plan objectively rated the quality of roadways for cyclists and pedestrians using a bicycle LOS and a pedestrian LOS. Scoring ranges from LOS A to F, with A being the best conditions and F the worst conditions. Within the project corridor, bicycle operations range from LOS E to LOS F and pedestrian operations range from LOS D to LOS F.

The Plan recommends a bicycle lane for the project corridor from East Center Street to west of Old Stage Road and paved shoulders from west of Old Stage Road to I-81. It also recommends sidewalks along the entire length of the project corridor between East Center Street and I-81.

3.3 Social and Economic

The demographic characteristics presented in the DEIS were based upon estimates made available through the U.S. Census Bureau following the 2010 U.S. Census. Some of the 2010 Census data was incomplete when the DEIS was published. Since that time, the majority of the data has been updated to reflect official Census Bureau records.

According to the 2010 U.S. Census, Sullivan County contains 413.4 square miles of land area and a population density of 379.4 people per square mile. The county's population in 2010 was estimated to be 156,823. The average household size is 2.33 persons compared to a national average family size of 2.58 persons. Owner-occupied homes totaled 48,423 while 17,875 residents occupied rented homes in Sullivan County.

In 2008, manufacturing was the largest of 20 major employment sectors; however, by the first quarter of 2013, manufacturing was surpassed by the health care and social assistance sector. Health care and social assistance became the largest of 20 major employment sectors as of the first quarter in 2013. Sullivan County's per capita income grew by 8.6 percent between 1996 and 2006 and by 19.8 percent between 2006 and 2012 (not adjusted for inflation). An overview of income and industry in Sullivan County is provided in Table 3-1.

TABLE 3-1: INCOME AND INDUSTRY OVERVIEW, SULLIVAN COUNTY

People and Income Overview	Value	Industry Overview (First Quarter 2013)	Value
Population (2010)	156,823	Total Employees	66,717
Growth (%) since 1990	9.2%	Health Care and Social Assistance - % all jobs in County	18.9%
Households	66,298		
Labor Force (persons) (October 2013)	73,130	Manufacturing	17.5%
Unemployment Rate (2013)	7.2%		

Sources: U.S. Census Bureau, 2010 U.S. Census; Tennessee Department of Labor and Workforce Development, Division of Employment Security (2013).

3.3.1 Social Characteristics

The University of Tennessee (UT) Center for Business and Economic Research performs population projections for the State of Tennessee, including state, county, and city populations. County populations are based on data to determine the annual change in population (the change in population equals births minus deaths plus net migration).

Population Characteristics - Tennessee and Sullivan County

Population projections for Tennessee and Sullivan County provided by the U.S. Census Bureau are shown in Table 3-2. Population growth for Sullivan County in the decades of 2010, 2020, 2030, and 2040 are far less than the population growth for the state. Sullivan County shows a growth rate (1.9 percent) between 2010 and 2020 that is 10.1 percent below the growth rate for the state (12 percent). Projected growth rates for Sullivan County indicate a net growth in population through 2040 of 1.5 percent higher than the 2010 figure. The State of Tennessee is predicted to realize an increase in population of 33.1 percent between 2010 and 2040.

TABLE 3-2: POPULATION AND FORECAST GROWTH, TENNESSEE AND SULLIVAN COUNTY

Geographic Area	Population				
	2010	2020	2030	2040	2010-2040 Change
Tennessee	6,346,105	7,107,926	7,799,933	8,449,472	2,103,367
Change from Previous Decade	11.5%	12.0%	9.7%	8.3%	33.1%
Sullivan County	156,823	159,749	160,591	159,219	2,396
Change from Previous Decade	2.5%	1.9%	0.5%	-0.9%	1.5%

Sources: Source: U.S. Census Bureau, 2010 U.S. Census; UT Center for Business and Economic Research (2013).

Population Characteristics - City of Kingsport

As shown in Table 3-3, the population for the City of Kingsport has remained steady when comparing estimates from 2005 through 2009. Between 2009 and 2012, the population increased by 14.4 percent due to a series of annexations.

TABLE 3-3: KINGSPORT POPULATION GROWTH, 2005-2012

City of Kingsport		Rate of Change in Percentages
2005	44,238	---
2006	44,259	+0.05%
2007	44,548	+0.65%
2008	44,610	+0.14%
2009	44,758	+0.33%
2010	47,643	+6.44%
2011	48,438	+1.67%
2012	51,206	+5.71%

Source: U.S. Census Bureau, (2005-2012)

*Note – Population statistics are based on 3-year estimates based on the U.S. Census Bureau's American Community Survey (ACS) between 2007 and 2012.

Population Characteristics - Study Corridor

The project study corridor bisects seven U.S. Census tracts. Table 3-4 provides data for each of the census tracts in the study corridor. However, many of these seven census tracts include large portions that are located outside of the immediate project area. Most of the SR 126 project is situated within Census Tract 423. Lesser portions of the project are located within Census Tracts 408, 409, 410, 411, 422 and 424. These adjacent census tracts are provided in Figure 3-5. The 2010 population within the immediate study corridor was 26,683. Census Tracts 423 (6,780 persons), 410 (4,052 persons), and 408 (3,633 persons) have the largest populations. A majority of the population in all tracts considered comprises senior adults 65 years of age or older.

TABLE 3-4: POPULATION AGE CHARACTERISTICS, 2010

Subject	Sullivan County Census Tracts							Total
	408	409	410	411	422	423	424	
TOTAL POPULATION	3,633	3,229	4,052	2,375	3,199	6,780	3,415	26,683
Under 5	208	203	204	106	152	335	173	1,381
5 – 14	420	418	564	270	393	850	375	3,290
15 – 24	399	380	363	230	384	680	415	2,851
25 – 34	408	322	385	243	281	615	343	2,597
35 – 44	436	388	551	297	453	964	493	3,582
45 – 54	461	431	654	335	525	1062	536	4,004
55 – 64	433	421	571	343	429	1064	485	3,746
65 and over	868	666	760	551	582	1210	595	5,232
Median age	43.9	42.6	44.3	46.5	43.8	44.3	43.4	

Source: U.S. Census Bureau, 2010 U.S. Census.

Racial Characteristics - Sullivan County and Study Corridor

The majority of Sullivan County's population is white. As seen in Table 3-5, the census tracts for the study corridor also reflect that a majority of the population is white. The largest minority group in Sullivan County is comprised of Hispanic/Latino (of any race) citizens.

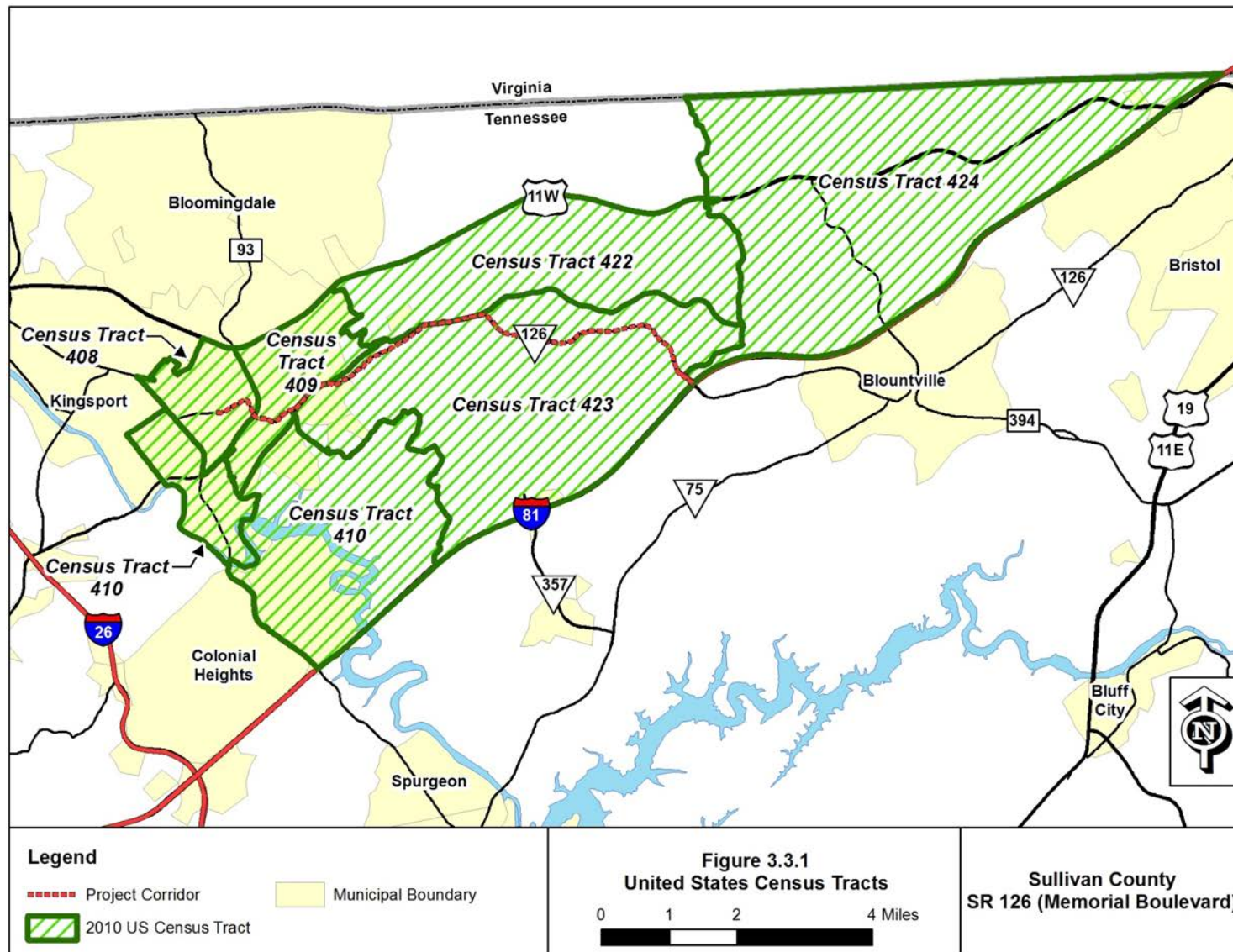
TABLE 3-5: RACIAL CHARACTERISTICS BY CENSUS TRACTS, SULLIVAN COUNTY, 2010

Subject	Sullivan County Census Tracts							Total
	408	409	410	411	422	423	424	
Race								
Total Population	3,633	3,229	4,052	2,375	3,199	6,780	3,415	26,683
One Race*	3,573	3,152	4,020	2,325	3,161	6,711	3,385	26,327
White	3,371	3,008	3,936	2,204	3,105	6,593	3,325	25,542
African-American	123	82	25	62	13	36	20	361
American Indian/Alaskan	19	5	7	12	7	14	5	69
Asian	12	40	39	21	12	42	13	179
Native Hawaiian	1	1	1	0	0	4	1	8
Some other race	47	16	12	26	24	22	21	168
Two or more races*	60	77	32	50	38	69	30	356
Hispanic/Latino (of any race)	94	40	63	50	45	60	39	391

Source: U.S. Census Bureau, 2010 U.S. Census.

Note: *Beginning in 2000, the U.S. Census Bureau allowed individuals to identify one or more races to indicate their racial identity.

FIGURE 3-5: U.S. CENSUS TRACTS WEST OF EAST CENTER STREET TO INTERSTATE 81



Source: U.S. Census Bureau, 2010 TIGER Shapefiles (2010).

Educational Characteristics - Tennessee and Sullivan County

Sullivan County has a similar percentage of residents who are high school graduates or equivalent (85 percent) as the State of Tennessee (85.1 percent). When comparing the percentage of residents who have attained a bachelor's degree or higher, Sullivan County has a slightly lower percentage (21.1 percent) than the State of Tennessee (24.3 percent).

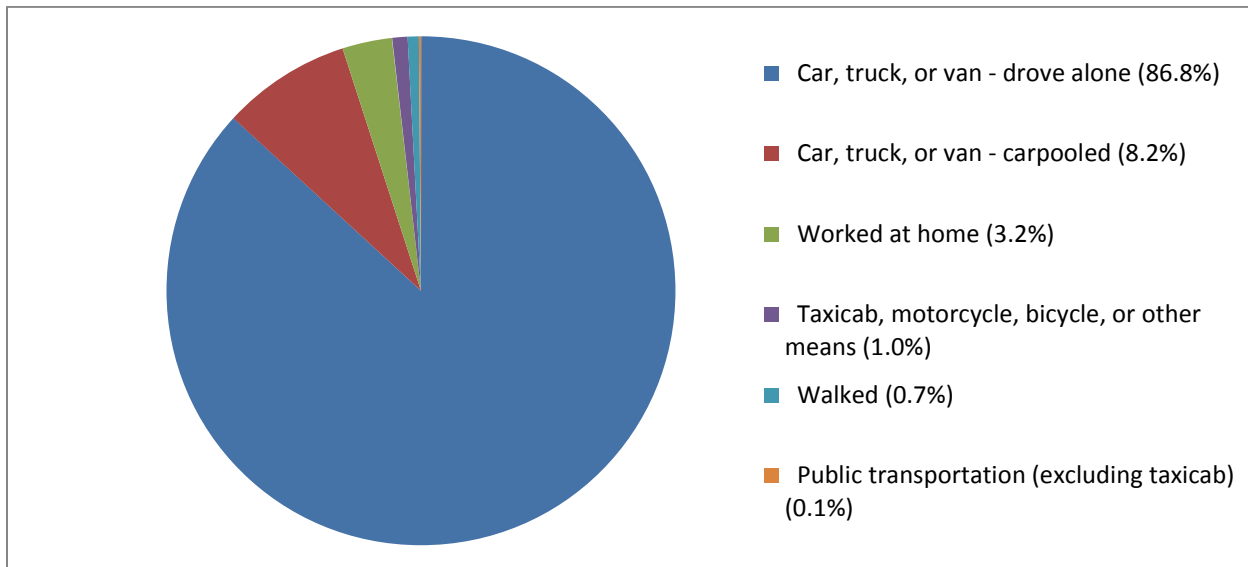
Urban/Rural Population Distribution - Sullivan County

The urban and rural distribution of residents within Sullivan County indicates that most residents live within the populated areas of Kingsport and Bristol. The study corridor is located primarily within a rural area. A small portion of the project within the city limits is urban. The U.S. Census 2010 figures estimate that 74.7 percent (116,737) of the county's residents are classified as living in urban areas, and the remaining 25.6 percent (40,086) reside in rural areas.

Commuting Methods - Sullivan County

A large majority (86.8 percent) of the residents in Sullivan County chooses the most common method of commuting to and from work, which is commuting as a single occupant. Carpooling with two or more vehicle occupants is the second most popular choice (8.2 percent). Very few residents utilize buses, taxis, bicycles or walking when commuting to work. Approximately three percent of residents work at home. Figure 3-6 includes a graphic which represents the means of transportation to work based on figures from the U.S. Census Bureau's 2010-2012 ACS.

FIGURE 3-6: SULLIVAN COUNTY COMMUTING PATTERNS



Sources: U.S. Census Bureau, American Community Survey 2010-2012.

Housing – Tennessee, Sullivan County, and Study Corridor

Interviews were conducted with local officials at the KMPTO and with a local real estate agent, and the Multiple Listings Service database was reviewed for Kingsport and Sullivan County. The discussions and research indicate that the area has not experienced drastic declines in home sales and home construction during the economic downturn between 2008 and 2009. Sales prices and home sales volumes show that home values remained steady between 2006 and 2009 for Kingsport and the Tri-City region of Kingsport, Bristol, and Johnson City. Annual sales volumes for the same years declined, but activities in 2010 indicated an increase.

Tables 3-6 and 3-7 provide U.S. Census 2010 information on the number of tenants and the type of homes they occupy. As seen in the table, 8,595 of the 11,091 housing units in the study corridor (77.5 percent) were owner-occupied, with the remaining 22.5 percent of housing units being occupied by renters. Census Tracts 408 (42.1 percent) and 409 (29.4 percent) had the highest percentages of renter-occupied housing units, while Census Tract 410 (11.3 percent) and Census Tract 422 (16.0 percent) had the lowest percentages.

TABLE 3-6: HOUSING DATA FOR SULLIVAN COUNTY AND TENNESSEE

	Total Project Area*	Sullivan County	Tennessee
Total Housing Units	11,091	73,760	2,493,552
Owner occupied	8,595	48,423	1,700,592
Percentage	77.5%	73.0%	68.2%
Renter occupied	2,496	17,875	792,960
Percentage	22.5%	27.0%	31.8%

Source: U.S. Census Bureau, 2010 U.S. Census.

Note: *These figures resulted from totaling the values of the seven Census Tract Areas

TABLE 3-7: HOUSING DATA FOR PROJECT AREA CENSUS TRACTS

	408	409	410	411	422	423	424
Total Housing Units:	1,569	1,388	1,599	1,103	1,284	2,725	1,423
Owner occupied	908	980	1,418	803	1,078	2,284	1,124
Percentage	57.9%	70.6%	88.7%	72.8%	84.0%	83.8%	79.0%
Renter occupied	661	408	181	300	206	441	299
Percentage	42.1%	29.4%	11.3%	27.2%	16.0%	16.2%	21.0%

Source: U.S. Census Bureau, 2010 U.S. Census.

Poverty – Tennessee, Sullivan County, City of Kingsport, and the Study Corridor

This project is located mainly within rural areas that are transitioning to suburban land use. The beginning of the project is within the city limits of Kingsport in an urban setting. An additional section of the project, along the I-81 corridor near and at the eastern terminus, is also within the city limits. The U.S. Census Bureau reported in its 2012 estimates that Kingsport had poverty levels of 17.4 percent, which is similar to Sullivan County (17.7 percent) and the State of Tennessee (17.9 percent).

As presented in the DEIS, and reconfirmed with the most recent census data, the area along the project corridor does not feature concentrations of socially interdependent family clusters. The area consists primarily of subdivisions and larger tracts of land with homes. Some multi-family housing exists within or adjacent to the project limits, but these structures are not occupied by largely minority or low-income populations. Table 3-8 compares poverty levels within the project's census tracts.

TABLE 3-8: U.S. CENSUS TRACT HOUSEHOLD INCOME, 2011

Category	Sullivan County Census Tracts							Total
	408	409	410	411	422	423	424	
Households	1,569	1,388	1,599	1,103	1,284	2,725	1,423	11,091
Median household income (\$)	28,723	57,917	57,045	47,500	55,881	52,083	45,193	---
Families	882	1,388	1,209	666	971	2,082	1,031	8,229
Median family income (\$)	44,375	67,089	68,563	58,094	55,898	65,857	55,168	---
Percent of all families below poverty	15.1%	16.0%	4.7%	4.3%	10.6%	6.9%	10.7%	---
Below poverty individuals	24.6%	21.9%	7.1%	7.9%	13.3%	9.2%	15.3%	---

Source: U.S. Census Bureau (2010, 2007-2011).

Personal Income – Tennessee and Sullivan County

The Tennessee Advisory Commission on Intergovernmental Relations (TACIR) provides selected statistical information for counties and compares them to state data. In 2011, the per capita personal income of Sullivan County was \$35,000. This is less than the state's per capita personal income of \$36,567 and ranks 16th out of Tennessee's 95 counties.

In 2011, the median household income of Sullivan County was \$40,572. This is less than the State's median household income of \$43,989 and ranks 32nd out of Tennessee's 95 counties.

3.3.2 Economic Characteristics

The 2013 labor force characteristics provided by the Tennessee Department of Labor and Workforce Development, indicated that Sullivan County had a lower unemployment rate than the State of Tennessee. The statewide labor force contained 3,058,300 persons in total, 2,806,400 of which were employed and 251,900 unemployed; the statewide unemployment rate was 8.2 percent. The labor force for Sullivan County contained 73,130 persons, 67,900 of which were unemployed and 5,230 unemployed; the unemployment rate for Sullivan County equaled 7.2 percent.

The highest numbers of employees located within the study area are found in the educational, health and social services, manufacturing, and in retail trade sectors. The immediate project area features mainly retail, agricultural, and other service industries. The majority of the retail located within the project area is in the East Center Street area and also at the interchange with I-81. Types of retail include convenience stores/gas stations, grocery stores, and clothing stores. Table 3-9 presents economic characteristics in census tracts.

TABLE 3-9: ECONOMIC CHARACTERISTICS FOR SULLIVAN COUNTY CENSUS TRACTS

Subject Industry Employees	Sullivan County Census Tracts							Total
	408	409	410	411	422	423	424	
Agriculture, forest, fishing and hunting, and mining	15	0	23	0	0	78	11	127
Construction	149	44	174	60	232	188	91	938
Manufacturing	134	304	339	250	293	646	322	2,288
Wholesale trade	0	9	30	39	9	21	10	118
Retail trade	201	106	182	171	195	330	131	1,316
Transportation and warehousing, and utilities	42	20	36	50	36	87	85	356
Information	27	0	7	9	42	54	10	149
Finance, insurance, real estate, and rental and leasing	86	72	85	20	72	156	8	499
Professional, scientific, management, administrative, and waste management services	62	41	195	92	65	213	17	685
Educational, health and social services	424	287	525	341	439	881	329	3,226
Arts, entertainment, recreation, accommodation and food services	238	102	129	95	67	217	194	1,042
Other services (except public administration)	7	83	115	37	92	200	39	573
Public administration	33	19	88	36	41	114	100	431

Source: U.S. Census Bureau (2007-2011).

3.3.3 Summary of Socioeconomic Characteristics

Socioeconomic characteristics of a project area establish an understanding of the local users of the roadway system, existing and future needs, and provide a context for transportation improvements. The demographic makeup and economic conditions within the project study area help to determine the significance of project-related impacts.

The City of Kingsport grew by 6,658 persons (14.9 percent) between 2007 and 2012 while the County population grew by 3,775 persons (2.5 percent) between 2000 and 2012. Many residents of the City of Kingsport and Sullivan County are senior adults that retired from the Eastman Kodak plant and have remained in the area. The vast majority of residents in the county and city are white homeowners with median household incomes that are higher than the statewide median household incomes for all but one of the project area's census tracts.

The unemployment rate for Sullivan County has decreased since 2010 and is currently lower than that of the state. Sullivan County high school graduates (or equivalent) constitute 85 percent of the residents, which is close to that of the State of Tennessee with 85.1 percent. Sullivan County also has a slightly lower percentage of residents who have attained a

bachelor's degree or higher (21.1 percent) than the State of Tennessee (24.3 percent). The poverty rate of Sullivan County (17.7 percent) is comparable to the poverty rate for Tennessee (17.9 percent). These rates are also similar to the 17.4 percent poverty rate within the Kingsport city limits.

3.4 Natural Environment

3.4.1 Topography and Geology

The project is located in Sullivan County along the eastern limits of the City of Kingsport. This area of Sullivan County features undulating to rolling valleys with rounded hills. The project area is situated within the Valley and Ridge physiographic region. In Tennessee, the Valley and Ridge is sometimes referred to as the Valley of East Tennessee, a rolling lowland formed on highly folded limestone, dolomite, and shale. Fertile valleys separated by wooded ridges make up this area. The eastern escarpment of the Cumberland Plateau and the Blue Ridge subdivision mark the boundaries of this region.

The valleys and lower flanks of major ridges are underlain by shale and limestone. Streams generally follow the narrow valley floors or cut across the strike of the ridges. Strikes are a geologic term that refers to the attitude or position of linear structural features such as faults, beds, joints, and folds. The Tennessee River flows southwest through the region. Principal feeders from the north are the Clinch, French Broad, and Holston Rivers. Major tributaries from the east are the Hiwassee and Little Tennessee Rivers.

Although karst topography is present within the project area, very few sinkholes have been mapped in the greater project region. Field observation did not result in the identification of sinkholes within or adjacent to the project limits. The underlying geologic formations are susceptible to sinkhole development due to their carbonate composition. Sinkhole development or the discovery of developing sinkholes could occur at any time but none were evident in areas where recent development has occurred, namely in the areas surrounding SR 126.

TDOT conducted a preliminary geologic investigation in June 2009. The varying topography ranges throughout the project from nearly level areas to steeply rolling terrain. A copy of the Preliminary Geologic Report is in the appendix of the DEIS.

A possible former borrow site was observed immediately west of Holiday Hills Road adjacent to the westbound lane of SR 126. No geotechnical concerns were noted with regard to this area.

Pyritic material is not expected to be encountered on the proposed project, and there do not appear to be any significant geological issues that cannot be addressed during the design and construction phases.

3.4.2 Terrestrial Resources

The project area is within the U.S. Environmental Protection Agency (EPA) Level III ecoregion (an ecologically and geographically defined area smaller than an ecosystem contains distinct natural communities and species) termed the "Ridge and Valley Ecoregion." This northeast-southwest trending, relatively low-lying, but diverse ecoregion is situated between generally higher, more rugged mountainous regions with greater forest cover.

Springs and caves are relatively numerous. Present-day forests cover about 50 percent of the region. The ecoregion has a diversity of aquatic habitats and species of fish. Natural plant

communities in this area of the ecoregion are Appalachian oak forest (mixed oaks, hickory, pine, poplar, birch, maple); bottomland oak and mesophytic forests; and cedar barrens.

Field studies and records reviews indicate that two main types of forests, mixed mesophytic and upper hardwood, exist in the project area. The mixed mesophytic habitat is found in the more sheltered ravines of the lower elevations and is dominated by woody species of white basswood (*Tilia heterophylla*), American beech (*Fagus grandifolia*), yellow buckeye (*Aesculus octandra*), sugar maple (*Acer saccharum*), red oak (*Quercus rubra*), and fraser magnolia (*Magnolia fraseri*); and, conifers such as white pine (*Pinus strobus*), eastern hemlock (*Tsuga canadensis*), and white ash (*Fraxinus americana*). The under-story vegetation includes successional species such as flowering dogwood (*Cornus florida*), eastern redbud (*Cercis canadensis*), eastern red cedar (*Juniperus virginiana*) and sassafras (*Sassafras albidum*). Rhododendron (*Rhododendron maximum*) and mountain laurel (*Kalmia latifolia*) dominate the slopes and stream sides. The upper hardwood habitat is found mainly at the higher elevations. The tree species at the higher elevations are often stunted or broken due to exposure to strong winds and include red oak (*Quercus rubra*), American beech (*Fagus grandifolia*), sugar maple (*Acer saccharum*), American elm (*Ulmus americana*), and Virginia pine (*Pinus virginiana*).

Open land exists in the project area and includes abandoned farmland, hay fields, and utility ROW. These areas exhibit an early successional, grass-shrub habitat with the dominant plants being cool-season grasses (fescue, timothy, and orchard grass), and a vast assortment of forbs (a broad-leaved herb other than a grass) and shrubs such as blackberry and honeysuckle. Plant succession is defined as the change in plant communities as a result of some kind of disturbance. Reviews of aerial photography of the project corridor for the past 60 years indicate that the amount of trees in the area has increased, which can be attributed to farmlands left inactive and that revert back to a more natural state.

3.4.3 Aquatic Resources

Surface Waters

Six streams are identified within the project corridor. Perennial streams include Sougans Branch, Fall Creek, and an unnamed tributary of Sougans Branch. Intermittent streams include an unnamed tributary of Fall Creek and an unnamed tributary of Reedy Creek. Booher Creek is depicted on U.S. Geologic Survey (USGS) topographic maps as a potential perennial stream. Booher Creek is listed in the EPA-approved 2010 303(d) list of impaired streams published by the Tennessee Department of Environment and Conservation's (TDEC) Division of Water Quality Control. The stream is impaired due to *Escherichia coli* (bacterium), and the source of the pollutant impairment is pasture grazing. Fall Creek is listed as an Exceptional Tennessee Waters/Outstanding Natural Resource Waters within the Warriors Path State Park. The park is approximately 4 miles outside of the project corridor.

Ephemeral streams (wet weather conveyances) may also be considered jurisdictional waters of the U.S. and subject to permitting requirements in Section 404 of the *Clean Water Act*, which controls the discharge of dredged or fill material in any portion of navigable waters) administered by the U.S. Army Corps of Engineers (USACE). An updated environmental boundary and mitigation report will be completed with appropriate consultation with the U.S. Fish and Wildlife Service (USFWS), the Tennessee Wildlife Resources Agency (TWRA), and TDEC prior to construction.

Floodplains

The review of Floodplain Insurance Rate Maps (FIRM) indicates that 100-year floodplains are within and near the SR 126 project corridor. The floodplains are associated with Fall Creek and Sougans Branch which are currently crossed by SR 126.

Wetlands

TDOT conducted surveys within the project impact area and consulted National Wetland Inventory and topographical maps. TDOT also coordinated with state and federal agencies to locate the presence of these resources. No wetlands were located within the corridor.

3.4.4 Federally-Listed and Proposed Threatened and Endangered Species

The TDEC Natural Heritage Inventory Program database was reviewed in December 2013. The review indicated nine species that are federally-listed as threatened or endangered in Sullivan County, Tennessee. The identified species from the 2013 listing are listed in Table 3-10. The table also indicates species in common with the 2008 listing completed for the DEIS. An updated environmental boundary and mitigation report will be completed with appropriate consultation with the USFWS, TWRA, and TDEC prior to construction. This documentation will include the review of state and federally-listed species.

TABLE 3-10: FEDERALLY-LISTED SPECIES IDENTIFIED WITHIN SULLIVAN COUNTY

Scientific Name	Common Name	Status – Habitat Information
<i>Erimonax monachus</i>	Spotfin Chub	Threatened - clear upland rivers with swift currents and boulder substrates.
<i>Myotis grisescens</i>	Gray Bat	Endangered - cave obligate year-round; frequents forested areas; migratory.
<i>Epioblasma florentina walkeri</i>	Tan Riffleshell	Endangered - river headwaters, in riffles and shoals in sand and gravel substrates.
<i>Fusconaia edgariana</i>	Shiny Pigtoe	Endangered - shoals and riffles of small-medium sized rivers.
<i>Fusconaia cuneolus</i>	Finerayed Pigtoe	Endangered - riffles of fords and shoals in firm cobble and gravel substrates.
<i>Quadrula intermedia</i>	Cumberland Monkeyface	Endangered - shallow riffle and shoal areas of headwater streams and bigger rivers in coarse sand/gravel substrates.
<i>Pegias fabula</i>	Littlewing Pearlymussel	Endangered - cool, clear, high-gradient streams in sand, gravel, and cobble substrates.
<i>Villosa perpurpurea</i>	Purple Bean	Endangered - creeks to medium-sized rivers, headwaters, in riffles with coarse sand/gravel and some silt.
<i>Etheostoma marmorpinnum</i>	Marbled Darter	Endangered - pools and moderate runs with clean pebbles, cobble, and small boulders.

Source: TDEC – Natural Heritage Inventory Program - www.tn.gov/environment/natural-areas/natural-heritage-inventory-program.shtml (December 2013).

Although the Indiana bat (*Myotis sodalis*) is not known to occur in the project area, a bat survey for this federally-listed endangered species was conducted at the request of the USFWS. Mist netting and field reviews were conducted in the project impact area from August 3 to August 10, 2011. No Indiana bats were documented. An *Indiana bat (Myotis sodalis) Mist Net Survey* report was completed in October 2011, and was provided in the appendix of the DEIS. The report covered the August 2011 field review. The northern long-eared bat (*Myotis septentrionalis*) has similar habitat requirements as the Indiana bat (*Myotis sodalis*). However, while awaiting

additional information from USFWS, TDOT will assume the bat may be present and will conduct a survey prior to construction letting.

3.4.5 State-Listed Species

According to the TDEC Natural Heritage Inventory Program database review in December 2013, there are 55 state-listed species that have been designated as endangered, threatened, deemed in need of management, or of special concern in Sullivan County, Tennessee. The identified species have been compiled into lists of plants and animals in Tables 3-11 and 3-12.

TABLE 3-11: STATE-LISTED PLANTS IDENTIFIED WITHIN SULLIVAN COUNTY BY TDEC

Scientific Name	Common Name	Status – Habitat Information
<i>Allium burdickii</i>	Narrow-leaf Ramps	Threatened and Commercially Exploited - rich woods
<i>Berberis canadensis</i>	American Barberry	Special Concern - rocky woods and river bars. According to the Nature Conservancy, American barberry was formerly found in fire-maintained habitats which kept the canopy open, i.e., it was an inhabitant of savannas and open woodlands, and fire suppression has significantly restricted its habitat to sites with shallow soil (such as glades and cliffs) or areas with mowing or other canopy-clearing activities (such as powerline corridors, railroad/road rights-of-way and riverbanks).
<i>Botrychium matricariifolium</i>	Chamomile Grapefern	Special Concern - mountain woods and thickets
<i>Buckleya distichophylla</i>	Piratebush	Threatened - rocky mountain woods and scattered among host trees within openings of hemlock forests, but habitats also include south-facing slopes and chestnut oak forests. It was thought that <i>B. distichophylla</i> was host specific to hemlocks, but subsequent investigations have shown otherwise.
<i>Carex roanensis</i>	Roane Mountain Sedge	Endangered - mid-elevation woodlands
<i>Cimicifuga rubifolia</i>	Appalachian Bugbane	Threatened - rich soil on river bluffs, north-facing hillsides and talus slopes, moist dolomite ledges in ravines, as well as rocky and shady woods below limestone bluffs
<i>Cymophyllus fraserianus</i>	Fraser's Sedge	Special Concern - mixed mesophytic forests
<i>Draba ramosissima</i>	Branching Whitlow-grass	Special Concern - dry, calcareous rocky cliffs
<i>Dryopteris cristata</i>	Crested Shield-fern	Threatened - bogs
<i>Goodyera repens</i>	Dwarf Rattlesnake-plantain	Special Concern - cool, moist, mountainous forest usually in proximity to conifers
<i>Hexastylis virginica</i>	Virginia Heartleaf	Special Concern - sandy or rocky woods
<i>Hydrophyllum virginianum</i>	Appalachian Waterleaf	Threatened - rich moist woods
<i>Juglans cinerea</i>	Butternut	Threatened - rich woods and hollows
<i>Lilium canadense</i>	Canada Lily	Threatened - rich woods and seeps
<i>Lonicera dioica</i>	Mountain Honeysuckle	Special Concern - moist mountain woods and thickets

TABLE 3-11: STATE-LISTED PLANTS IDENTIFIED WITHIN SULLIVAN COUNTY BY TDEC (CONTINUED)

Scientific Name	Common Name	Status – Habitat Information
<i>Magnolia virginiana</i>	Sweetbay Magnolia	Threatened - forested acidic wetlands
<i>Maianthemum stellatum</i>	Starflower False Solomon's-seal	Endangered - moist stream banks, floodplains, and sandy woods
<i>Meehania cordata</i>	Heartleaf Meehania	Threatened - wooded mountain slopes
<i>Panax quinquefolius</i>	American Ginseng	Special Concern and Commercially Exploited - rich, cool, moist hardwood-dominated or mixed woods, under a closed canopy, especially on slopes or ravines and often over a limestone or marble parent material on soil with a good humus component.
<i>Platanthera grandiflora</i>	Large Purple Fringed Orchid	Endangered - wet meadows and along streams
<i>Platanthera orbiculata</i>	Large Round-leaved Orchid	Threatened - mid-elevation mesic forests
<i>Potamogeton epihydrus</i>	Nuttall's Pondweed	Special Concern - lakes and streams
<i>Pyrola Americana</i>	American Wintergreen	Endangered - moist woods and bogs
<i>Ribes americanum</i>	Wild Black Currant	Endangered/Proposed Threatened - slopes in mesic forests
<i>Silene caroliniana</i> ssp. <i>Pensylvanica</i>	Carolina Pink	Threatened - sandy, dry and open woodlands and rocky bluffs
<i>Streptopus amplexifolius</i>	White Mandarin	Threatened - wet cliffs and mesophytic mountain woods
<i>Symplocarpus foetidus</i>	Skunk-cabbage	Endangered - swamps and bogs
<i>Thuja occidentalis</i>	Northern White Cedar	Special Concern - calcareous rocky seeps and cliffs
<i>Trientalis borealis</i>	Northern Starflower	Threatened - mountain mesophytic hardwood forests
<i>Tsuga caroliniana</i>	Carolina Hemlock	Threatened - dry ridges
<i>Viburnum rafinesquianum</i>	Downy Arrowwood	Special Concern - calcareous woods and river bluffs
<i>Woodsia scopulina</i> ssp. <i>Appalachiana</i>	Alleghany Cliff-fern	Special Concern - mountain cliffs

Source: TDEC – Natural Heritage Inventory Program (December 2013)

TABLE 3-12: STATE-LISTED ANIMALS IDENTIFIED WITHIN SULLIVAN COUNTY BY TWRA AND TDEC

Scientific Name	Common Name	Status – Habitat Information
<i>Corvus corax</i>	Common Raven	Threatened - mountainous (elevation usually above 3000 feet), hilly areas with open and spottily wooded lowlands. It is usually found far from humans.
<i>Epioblasma florentina walkeri</i>	Tan Riffleshell	Endangered - river headwaters, in riffles and shoals in sand and gravel substrates
<i>Erimonax monachus</i>	Spotfin Chub	Threatened - clear upland rivers with swift currents and boulder substrates
<i>Fusconaia cuneolus</i>	Finerayed Pigtoe	Endangered - riffles of fords and shoals in firm cobble and gravel substrates
<i>Fusconaia edgariana</i>	Shiny Pigtoe	Endangered - shoals and riffles of small-medium sized rivers
<i>Haliaeetus leucocephalus</i>	Bald Eagle	Wildlife-In-Need-Of-Management - shoreline along unpolluted water with high perching and lookout points, and tall, often dead, trees for nests

TABLE 3-12: STATE-LISTED ANIMALS IDENTIFIED WITHIN SULLIVAN COUNTY BY TWRA AND TDEC (CONTINUED)

Scientific Name	Common Name	Status – Habitat Information
<i>Limnothlypis swainsonii</i>	Swainson's Warbler	Wildlife-In-Need-Of-Management - mountains of east Tennessee, in rhododendron or mountain laurel tangles, generally in ravines in hardwood or mixed forests
<i>Myotis grisescens</i>	Gray Bat	Endangered - cave obligate year-round; frequents forested areas; migratory
<i>Myotis leibii</i>	Eastern Small-footed Bat	Wildlife-In-Need-Of-Management - hibernates in caves and mines; also uses abandoned buildings, bridges, and barns seasonally
<i>Parascalops breweri</i>	Hairy-tailed Mole	Wildlife-In-Need-Of-Management - not restricted to any one habitat type, and is found in secondary hardwood forest, open fields, old pastures, cultivated fields, and along roadsides
<i>Pegias fabula</i>	Littlewing Pearlymussel	Endangered - cool, clear, high-gradient streams in sand, gravel, and cobble substrates
<i>Percina aurantiaca</i>	Tangerine Darter	Wildlife-In-Need-Of-Management - medium sized streams to moderate rivers, with adults typically occupying the deeper, smooth-surfaced areas with moderately swift currents adjacent to shallow riffles. Smaller individuals are usually found along the shoreline of pools.
<i>Percina burtoni</i>	Blotchside Darter	Wildlife-In-Need-Of-Management – large creeks and small medium rivers with low turbidity
<i>Percina williamsi</i>	Sickle Darter	Threatened - flowing pools over rocky, sandy, or silty substrates in clear creeks or small rivers
<i>Phoxinus tennesseensis</i>	Tennessee Dace	Wildlife-In-Need-Of-Management – first order spring-fed streams of woodlands in Ridge and Valley limestone region
<i>Quadrula intermedia</i>	Cumberland Monkeyface	Endangered - shallow riffle and shoal areas of headwater streams and bigger rivers in coarse sand/gravel substrates
<i>Sorex fumeus</i>	Smoky Shrew	Wildlife-In-Need-Of-Management - confined to mountains, and the preferred habitat is damp deciduous-coniferous forest around stumps, under mossy logs and rocks and near streams
<i>Sorex longirostris</i>	Southeastern Shrew	Wildlife-In-Need-Of-Management - moist to wet areas usually bordering swamps, marshes or rivers. It is also found in old fields, dry upland hardwoods, and planted pine plots. In all habitats, this species is associated with heavy ground cover of grasses, sedges, rushes, blackberry, Japanese honeysuckle, and/or thick mats of decaying leaves.
<i>Synaptomys cooperi</i>	Southern Bog Lemming	Wildlife-In-Need-Of-Management - a broad range of habitats, ranging from moist meadows, marsh borders, dry field thickets, eastern red cedar woodland, and moist woodlands

TABLE 3-12: STATE-LISTED ANIMALS IDENTIFIED WITHIN SULLIVAN COUNTY BY TWRA AND TDEC (CONTINUED)

Scientific Name	Common Name	Status – Habitat Information
<i>Tyto alba</i>	Common Barn Owl	Wildlife-In-Need-Of-Management - areas of idle or lightly grazed grassland. Reduction in number of buildings and silos that can still be accessed for nesting, but remain out of reach of increasing raccoon populations, is a major contributing factor to the decrease in the population of barn owls.
<i>Villosa perpurpurea</i>	Purple Bean	Endangered - creeks to medium-sized rivers, headwaters, in riffles with coarse sand/gravel and some silt
<i>Zapus hudsonius</i>	Meadow Jumping Mouse	Wildlife-In-Need-Of-Management - grasslands, orchards, meadow and old fields. It prefers areas with numerous shrubs, and areas with herbaceous ground cover. They are sometimes taken in wooded areas when herbaceous cover is adequate. Impatiens (touch-me-not) is apparently a good habitat indicator.

Source: TDEC – Natural Heritage Inventory Program (December 2013)

An environmental boundary and mitigation report will be completed with appropriate consultation with the USFWS, TWRA, and TDEC prior to construction.

3.4.6 Invasive Species

Executive Order 13112 was enacted to prevent the introduction of invasive species, provide for their control, and minimize the economic, ecological, and human health impacts that invasive species cause. The aquatic and terrestrial ecology report completed in December 2008 identified invasive plant species in the project area. The plant species included: Japanese honeysuckle (*Lonicera japonica*), mimosa/silk tree (*Albizia julibrissin*), kudzu (*Puereria montana*), Chinese privet (*Ligustrum sinense*), common privet (*Ligustrum vulgare*), multiflora rose (*Rosa multiflora*), tree of heaven (*Ailanthus altissima*), Queen Anne's lace/wild carrot (*Daucus carota*), paper mulberry (*Broussonetia papyifera*), cocklebur (*Xanthium strumarium*), bull-thistle (*Cirsium vulgare*), Canada thistle (*Cirsium arvense*), ox-eye daisy (*Chrysanthemum leucathemum*), and fescue (*Festuca arundinacea*). Field observations also noted the occurrence of several exotic animal species including Asian clam (*Corbicula fluminea*) and the European starling (*Sturnus vulgaris*). Other exotic organisms are likely present within the project area but the survey did not reveal their presence.

3.5 Cultural Resources

Section 106 of the *National Historic Preservation Act of 1966* requires federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment. The historic preservation review process mandated by Section 106 is outlined in regulations issued by the ACHP and referred to as "Protection of Historic Properties" in 36 Code of Federal Regulations (CFR) Part 800.

Surveys of potential historic properties and archaeological sites were performed in accordance with Section 106 guidelines outlined in 36 CFR 800. The purpose of these studies was to determine the presence of resources listed, or eligible for listing, in the NRHP within the project's Area of Potential Effect (APE). The APE is defined as the geographic area or areas

within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist.

3.5.1 Historic/Architectural Resources

The APE was established as being 1,500 feet from either side of the existing SR 126 centerline. TDOT identified two properties within the APE that are eligible for, or listed in, the NRHP. The properties are the Shipley-Jarvis House located at 3309 Memorial Boulevard (SR 126) and Yancey's Tavern located on SR 126 at its intersection with Chestnut Ridge Road. The properties are described below. See Figure 3-7 for a map of the APE.

Shipley-Jarvis House

This property is located on the south side of SR 126 in a residential and commercial section of East Kingsport. It exemplifies the adaptation of 19th century dwellings to conform to 20th century architectural tastes. Its architectural features continue to illustrate both mid-19th century building methods and 20th century stylistic changes. The property is NRHP eligible. The Shipley-Jarvis House is located on a 1.6-acre tract near the project's East Center Street terminus. See Figure 3-8 for a map of the property.



Yancey's Tavern



This property was listed in the NRHP in 1972 for its significance in the early settlement of Sullivan County. According to the NRHP listing, Yancey's Tavern was constructed in 1782 as a double log house with a dogtrot. Underneath the present façade remain the logs used to construct the house. Hand-fired brick replaced the original chimneys which were constructed of stone. Bricks have also replaced some of the original stone foundation. Brick was used in recent years to completely enclose the cellar, but the framing of the door and window openings leading into the cellar

are from a much earlier time period. Front and back porches were later additions to the structure. The back wing of the house includes a fireplace with a simple mantel, suggesting an early date though it is not part of the original structure. The location of a back chimney suggests that this area was once a small open area between the kitchen and the main structure. Openings for windows and doors pre-date the 20th century but are not original materials. The interior of Yancey's Tavern is simple with three plain, well-executed mantels on the first floor. The two second-story rooms are accessed by separate stairways. The construction of the dogtrot is visible on the second floor because this portion of the house has not been finished for use.

FIGURE 3-7: AREA OF POTENTIAL EFFECT (APE) FOR HISTORIC/ARCHITECTURAL RESOURCES

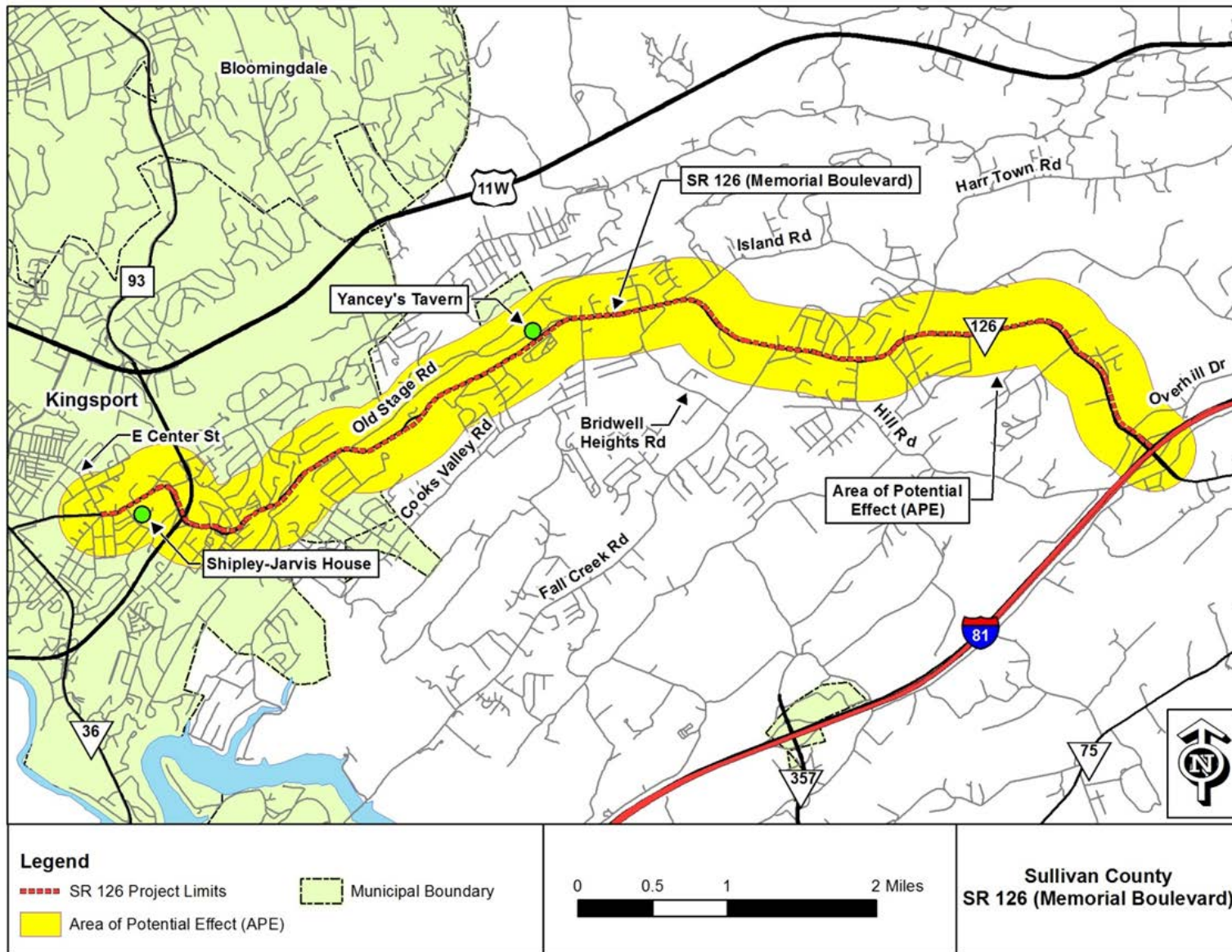


FIGURE 3-8: SHIPLEY-JARVIS HOUSE (NRHP ELIGIBLE BOUNDARY)

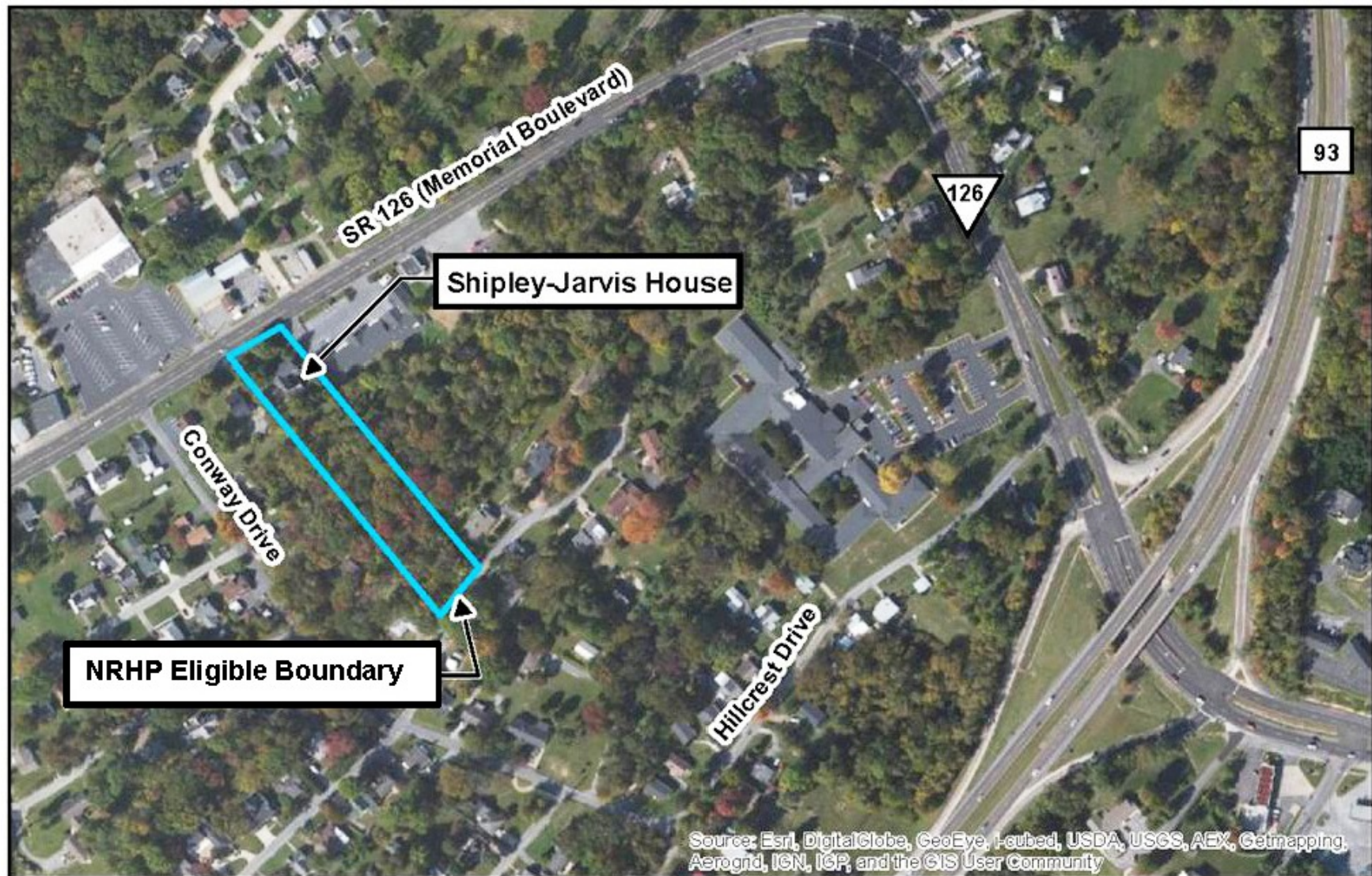
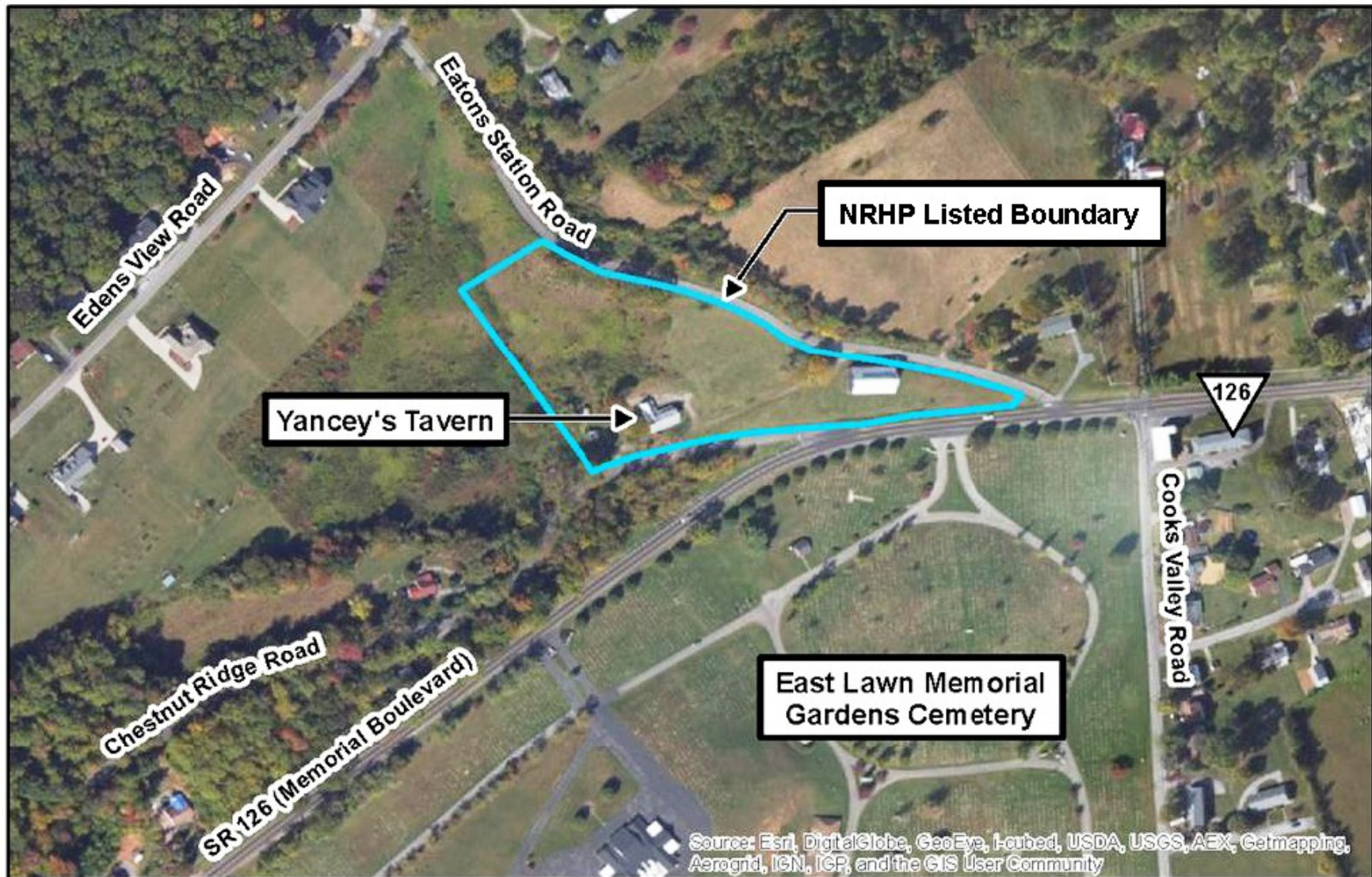


FIGURE 3-9: YANCEY'S TAVERN (NRHP LISTED BOUNDARY)



The Yancey's Tavern property includes various outbuildings such as a barn, a wash house, spring house, chicken house, and a corn crib, which all are associated with the late 19th/early 20th centuries. The frame granary which features a shingled roof and stone foundation is considerably earlier according to the NRHP narrative. See Figure 3-9 for a map of the property.

The NRHP also states that Yancey's Tavern was a crucial stopping point along Island Road, which was a major artery in East Tennessee. This allowed the historic property to figure prominently in the development of the area and attracted notable visitors, including John Sevier and William Blount. Yancey's Tavern also served as headquarters for local businesses including meetings of the Sullivan County Court. Island Road predates the historic property, being completed in September 1761, and is the first road constructed in Tennessee. Island Road connected Chillhowie, Virginia, to the Long Island of the Holston River. Part of Island Road later was renamed the "Great Stage Road." The Tennessee section of Island Road supported connections between three forts, including Eaton's Fort which in the early 1770s was a portion of Amos Eaton's "corn rights" land. Eaton sold a portion of his land near the fort in 1779 to James Hollis who ultimately sold 900 acres to John Yancey, Sr. in 1782. It cannot be determined if the structure now known as Yancey's Tavern was constructed prior to the sale of the land to Yancey, but became operable shortly after the real estate transaction was completed. The Yancey heirs maintained the property until the last half of the 19th century. The property changed ownership several times until it was purchased in 1889 by John R. Spahr, whose descendants owned the property into the 20th century. The property was purchased by the current owner, Rann L. Vaulx, at auction.

3.5.2 Archaeological Resources

Beginning in October 2001, investigations were conducted to provide information on the existence of archaeological resources within the project area. This information was used during development of the concept for improving SR 126.

These investigations were conducted in two phases. Phase 1A consisted of a literature and records search for the areas surrounding the proposed alternatives. Phase 1B consisted of a systematic pedestrian survey of high-probability areas that were identified in Phase 1A. The objective of the survey was to identify and record all archaeological resource sites within or adjacent to the proposed project corridor that are listed, eligible for listing, or potentially eligible for listing on the NRHP pursuant to criteria set forth in 36 CFR 60.4.

The results of the archaeological surveys identified four sites within or adjacent to the proposed build alternatives. Site 40SL412 is a late 19th or early 20th century farmstead site with a small prehistoric component. The site contains information that could be important to understanding life in rural Sullivan County in the late 19th and early 20th centuries. Site 40SL413 is a prehistoric lithic scatter that has a high potential for intact deposits below the plowzone. Since there are not many prehistoric sites along the corridor, the Tennessee State Historic Preservation Office (SHPO) agreed that this property is potentially eligible. Site 40SL419 is the archaeological component of the already NRHP-listed Yancey's Tavern property, including both historic and prehistoric components. The historic component was determined eligible, and the prehistoric component was determined potentially eligible. The prehistoric component lies inside the area of the barn, Eaton Station Road, and SR 126. Site 40SL421 is a small historic house site with a surviving stone-lined cellar and a brick-lined cistern, both situated on a rocky rise between the current SR 126 and one of its earlier roadbeds. Probable dates for the structure range from between 1854 and 1939.

3.5.3 Native American Consultation

Pursuant to Section 106 of the NHPA and 36 CFR 800, Section 106 consultation letters were sent to the following Native American tribes in November of 2003:

- Eastern Shawnee Tribe of Oklahoma
- Muscogee (Creek) Nation of Oklahoma
- Eastern Band of Cherokee Indians
- Chickasaw Nation
- Choctaw Nation of Oklahoma
- Seminole Nation of Oklahoma
- United Keetoowah Band of Cherokee Indians in Oklahoma
- Quapaw Tribe of Oklahoma
- Thlopthlocco Tribal Town, Oklahoma

The Eastern Shawnee Tribe of Oklahoma, Muscogee (Creek) Nation of Oklahoma, and the Eastern Band of Cherokee Indians each stated they were either currently unaware of any documentation linking Indian religious sites to the proposed construction, or unaware of any cultural or archaeological sites in the project area. Each tribe requested that they be notified if any human remains or objects are encountered.

A tribal summit, “Recognizing Native American Religious and Cultural Interests in Tennessee: Implementing Section 106 of the National Historic Preservation Act for Transportation Projects” was held in December 2005. Tribe representatives identified for TDOT their interests in Tennessee within specific counties. One of the results of this summit was to shorten the list of tribes to whom TDOT would send Section 106 consultation based on those identified interests.

Using the list developed at the summit, and because of the time that had passed since the original coordination and the introduction of Alternative B Modified, tribal coordination was conducted for the project on January 9, 2012. As a result of this coordination, both the Cherokee Nation and United Keetoowah Band of Cherokee Indians in Oklahoma indicated that they were unaware of any sites and had no objections to the project as proposed. Both tribes will be notified if human remains or objects are discovered. Additional coordination was sent to the Muscogee (Creek) Nation of Oklahoma, Eastern Shawnee Tribe of Oklahoma, Shawnee Tribe, United Keetoowah Band of Cherokee Indians, Eastern Band of Cherokee Indians and the Cherokee Nation on February 27, 2014, but no responses were received.

If archaeological material, including human remains and objects, is uncovered during construction, all construction will cease in that area, and the Federal Highway Administration, federally recognized Native American tribes and Tennessee Division of Archaeology will be contacted to resolve disposition of the discovery.

3.6 **Recreational Resources**

A site reconnaissance was conducted within the project corridor to determine if public or private parks, wildlife refuge areas, or other forms of recreational resources exist. In addition to the site reconnaissance, maps of the area were reviewed, and interviews were conducted with local officials. No recreational resources were identified within or near the project corridor.

3.7 Visual Resources

The project begins in an urbanized segment of Kingsport, and as it moves eastward, it climbs a hill and transitions into an area with scattered agricultural and residential land use. The urban section of the project is in a relatively flat area with numerous houses and businesses situated close to one another along the existing roadway and surrounding areas. As the project climbs out of the urbanized area, homes become less dense. Most of the homes are along the existing SR 126 or along feeder roads. Farmland becomes more evident as the project area moves eastward. Reviews of land use maps on file at the TDOT Environmental Division Office in Nashville, which span a 50-year period, indicate that many areas now have more trees within the area in relation to the initial photographs from the 1950s. Most of the areas with trees are in the rural area and indicate the loss of smaller farms as lack of agricultural activity allows for re-growth. Some additional wooded areas are located in neighborhoods that have been established for several decades.

In addition to becoming more rural in nature in the eastern portion of the project corridor, the project terrain becomes more mountainous and rolling. Vegetation is predominately a mix of agricultural lands and scattered forests in the eastern two-thirds of the project. The western third of the project contains mainly manicured lawns or is covered by impermeable surfaces in the urban section of the project. Local and commuter traffic generally use the existing SR 126 on a daily basis and view the surrounding landscape from their vehicles.

Viewers of the road comprise residents and businesses occupying the areas and vary in frequency based on whether they are located in an urban or rural setting. There are more residents in the city of Kingsport than in the middle section of the project.

Throughout the CSS process, the CRT expressed concerns on behalf of the public regarding any action that would diminish the scenic attributes of the hillsides of Chestnut Ridge that account for a great portion of the project. The hills and rural nature of the greater portion of the project are important to residents of the immediate area and to residents of Kingsport and Sullivan County.